

**IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/567,211

Applicant(s): Yimin Chen, et al.

Filed: February 3, 2006

TC/A.U.: 2800/2821

Examiner: Tung X. Le

Atty. Docket: US 030263 US2

Confirmation No.: 9664

Title: TOTAL HARMONIC DISTORTION REDUCTION
FOR ELECTRONIC DIMMING BALLAST

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In conjunction with the Notice of Appeal filed concurrently, Applicants respectfully request reconsideration of the application in light of the following remarks.

The claims in the present application stand at least twice rejected under 35 U.S.C. § 112,
¶ 2. The rejection of claims 1-18 are appropriate for consideration under the Pre-Appeal Conference Program as established at 1296 Off. Gaz. Pat Office 67 (July 12, 2005) because it is based upon clear and factual legal deficiencies.

Claims 1-18 were rejected under 35 U.S.C. § 112, ¶2 as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Applicants respectfully submit that all claims are compliant with this section and paragraph of the Code.

In particular, at page 2, the final Office Action asserts:

“...the recitation ‘*wherein said clamped rectified voltage is a function of a load*’ in claim line 12 of claim 1, in line 7 of claim 11, in line 10 of claim 17, and in line 6 of claim 18 renders the claim indefinite since it appears to be mis-descriptive. What is the load being referred to in the ballast circuit? What is the relationship between the clamped rectified voltage and the load?’” (Emphasis in original).

Applicants respectfully submit that the rejection under 35 U.S.C. § 112, ¶2 and the Examiner’s basis therefor **are clearly erroneous**.

The second paragraph of § 112 requires the specification of a patent to "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, P2 (2000). To satisfy this requirement, the claim, read in light of the specification, must apprise those skilled in the art of the scope of the claim.¹ Moreover, claims need not "be plain on their face in order to avoid condemnation for indefiniteness; rather, that the claims be amenable to construction, however difficult that task may be." The requirement to "distinctly" claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles.² Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.³

Claim 1, for example, recites:

a power factor correction integrated circuit, and a line voltage sensing circuit in electrical communication with said power factor correction integrated circuit to apply a clamped rectified voltage to said power factor correction integrated circuit, wherein said clamped rectified voltage is a function of a load being applied by said inverter output stage to said power factor correction integrated circuit.

¹ See *Miles Lab. v. Shandon, Inc.*, 997 F.2d 870, 875 (Fed. Cir. 1993).

² *Union Pac. Res. Co. v. Chesapeake Energy Corp.*, 236 F.3d 684, 692 (Fed. Cir. 2001); *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 1547 (Fed. Cir. 1984).

³ *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

Claims 11, 17 and 18 each include features similar to the emphasized feature of claim 1, and are similarly rejected.

The application, as filed, provides ample support and not only is not insolubly ambiguous, but also quite clear in its description. For example, beginning at page 3, line 24, the Applicants disclose (with emphasis added):

“In order to impede the increase in the THD [total harmonic distortion] of ballast 10 at the light load conditions, dimming interface 40 electrically communicate the dimming level signal VDL to input stage 20 and/or output stage 30 electrically communicates a conventional load feedback signal VFB to input stage 20. ***Both of these signals provide an indication of the load being applied by output stage 30*** between intermediate terminals 13 and 14. As will be explained in further detail herein with the description of FIGS. 2-4, ***input stage 20 adjusts a magnitude of a clamped rectified voltage applied to a multiplier input of PFC IC 26*** in order to impede an increase in the THD of ballast 10 as line voltage VIN approaches high line condition (e.g., 277V for universal input), and the load applied by output stage 30 between intermediate terminals 13 and 14 approaches the light load condition.

Plainly, the indication of the load applied to the output stage is provided by the described signals, and the functional relation of the clamped rectified voltage to the load is clearly described in connection with an embodiment described in connection with Fig. 1. Applicants respectfully submit that claims 1, 11, 17 and 18, when read in light of the portion of the filed application captioned above, along with Fig. 1 would apprise one of ordinary skill in the art of the scope of the claim. Therefore, and for at least the reasons presented above, Applicants respectfully submit that the rejection of claims 1-18 under 35 U.S.C. § 112, ¶2 is without merit or basis, and therefore is **clearly erroneous**.

Moreover, beginning at page 4, line 24, in connection with providing a **clamped full wave voltage VCFW** (see Fig. 2), the filed application discloses (with emphasis provided):

“To this end, dimming interface 40 (FIG. 1) electrically communicates dimming level signal VDL to THD controller 25 and/or **output stage 30 electrically communicates load feedback signal VFB to THD controller 25 whereby THD controller 25 receives an indication of the load condition**. Additionally, THD controller 25 is in electrical communication with rectifier 23 to sense full wave voltage VFW or in electrical communication with voltage divider 24 to sense a portion of full wave voltage VPFW whereby, in either case, THD controller 25 receives an indication of line voltage VIN.”

Thus, the indication of the load condition is provided to the THD controller by the output stage 30 and the functionality of the clamped *rectified voltage* and *load being applied* is described in the specification and in connection with Fig. 1. Applicants respectfully submit that claims 1, 11, 17 and 18, when read in light of the portion of the filed application captioned above, along with Fig. 1 would apprise one of ordinary skill in the art of the scope of the claim. Therefore, and for at least the reasons presented above, Applicants respectfully submit that the rejection of claims 1-18 under 35 U.S.C. § 112, ¶2 is without merit or basis, and therefore is **clearly erroneous.**

In the Response to Arguments in the final Office Action, the Examiner asserts:

- (1) There are NO supports in the specification addressed “said claims rectified voltage is a function of a load”. For example, in page 7, lines 15-16 shows that “*the base voltage VB as a function of load condition signal VCL is without limit.*”

Applicants respectfully submit that the captioned portion of page 7 of the filed application describes the functionality of a base voltage and load condition signals in connection with the controller 29 shown in Fig. 3. The relevance of this portion of the applied art to the Examiner’s position in support of the rejection under 35 U.S.C. § 112, ¶2 is not provided in the final Office Action, and is not facially apparent. Moreover, Applicants respectfully submit that this portion of the filed application does not render claims 1-18 insolubly ambiguous, but rather provides details of the functionality of a base voltage and load condition signals in connection with the controller 29 shown in Fig. 3. Therefore, a clearly articulated rejection explaining why claims 1-18 are allegedly insolubly ambiguous has not been provided and represents **clear error in the examination of the present application.**

Conclusion

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:
Phillips Electronics North America Corp.

/William S. Francos/

by: William S. Francos (Reg. No. 38,456)

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